

Applicants have provided in this Reply additional Figs. 9-12 and revised Figs. 1 and 8. Figs. 1 and 8 have been modified solely by adding additional reference numbers (highlighted in red). Once these drawings have been approved by the Examiner, Applicants will forward the drawings to the Official Draftsperson for approval. Applicants gratefully acknowledge the telephone interview conducted with Examiner Ghatt and Examiner Burr on February 20, 1997.

In order to overcome the Examiner's objection with respect to the drawings, Applicants have submitted in the Reply an additional sheet of drawings (including proposed Figs. 9-11) and corresponding text which illustrate and discuss the onplant/implant anchorage system fully described in the application as originally filed. For support, see, for example, page 22, line 16 through page 23, line 20. During the telephone interview, Examiner Burr also requested that a drawing be provided to support any claim directed to an implant having an integrally formed orthodontic appliance. Accordingly, Applicants also have included proposed Fig. 12 and corresponding text in this Reply, which illustrate and discuss the integrally formed embodiment fully described in the application as originally filed. For support, see, for example, page 21, lines 5-13.

In addition, for the benefit of the reader, Applicants have added a paragraph on page 12 which describes the implant 10 shown in Figs. 1 and 8 (and which applies to numerous other embodiments of the invention described in the application as filed), using somewhat different terms. Nonetheless, these terms are fully supported by the application as originally filed. See, for example, Figs. 1 and 8; page 11, line 5 - page 12, line 12; and page 22, lines 3-15. Accordingly, Applicants have not added any new matter with these additional figures and text.

Applicants acknowledge the Examiner's identification of allowable subject matter as presented in claims 8 and 29. Given the high number of claims rejected under 35 USC §112, second

paragraph, however, Applicants felt it would be much easier for the Examiner if Applicants prepared and submitted a new claim set which claimed Applicants invention more distinctly and with greater particularity. Accordingly, Applicants have cancelled claims 1-37 and have prepared and submitted new claims 38-83. Applicants respectfully believe that these claims overcome the §112 rejection and also patentably distinguish over the references of record in this case. Applicants also believe that the pending claims patentably distinguish over the references provided in the Supplemental Information Disclosure Statement filed on the same day as this Reply.

During the telephone interview on February 20, 1997, Examiner Burr encouraged Applicants to provide additional comments regarding the patentability of pending claims 38, 57 and 78. Accordingly, Applicants are providing the remarks below which highlight a few of the many patentable distinctions of these specific claims over the art of record.

In claim 38, Applicants' implant calls for an elongated body having an in-bone portion connected to an above-bone portion, with each of the portions having an inner end and an outer end. Because the cross-sectional area of the above-bone portion inner end is greater than the cross-sectional area of the in-bone portion outer end, a shoulder having a bone-contacting surface on the above-bone portion inner end is formed. Furthermore, this same elongated body, including the in-bone portion, the above-bone portion and the shoulder, further includes a securing section for attaching an orthodontic appliance to the elongated body. That is, the securing section is a part of the elongated body itself.

If this claimed invention is compared with the porous expandable device shown in Rybicki et al., U.S. Patent No. 4,011,602, it is apparent that Applicants' claimed invention is neither shown nor suggested by Rybicki. For example, Rybicki fails to disclose or suggest an elongated

body having an in-bone portion, an above-bone portion, a shoulder and a securing section for attaching an orthodontic appliance. Even if, for the sake of argument, the narrow threaded portion 24 of the cylindrical member 22 were labelled a "securing section," this labelling still would not meet Applicants' claimed invention. As shown most clearly in Figs. 2 and 3 of the Rybicki patent, the narrow threaded portion 24 is not a part of the body member 10. Instead, the portion 24 is a part of an entirely separate component, namely Rybicki's cylindrical member 22. Accordingly, Applicants' implant as presented in claim 38 patentably distinguishes over the porous expandable device shown in the Rybicki patent.

Claims 57 and 78 are directed to the aspect of Applicants' invention which includes an anchorage system for use in creating a stabilizing or moving force in the mouth. As claimed, the anchorage system calls for an onplant having a bone-facing surface, an opposite face, and a hole extending all the way through the onplant at an angle substantially perpendicular to the bone-facing surface. The anchorage system also includes an implant having an elongated body including an inner end and an outer end, with a portion of the elongated body including the inner end capable of being positioned through the hole in the onplant and in an opening in a bone surface, whereby the onplant is affixed to a bone surface, despite the fact that there has been no bone integration into the onplant.

If the invention presented in claims 57 and 78 is compared with the orthodontic anchor shown in Block et al., U.S. Patent No. 5,066,224, it is apparent that Applicants' claimed invention is neither shown nor suggested by Block. In fact, Block actually teaches away from Applicants' invention. Whereas Applicants' claimed invention includes an onplant having a hole extending all the way through the onplant, and an implant which is positioned through the hole in the onplant and into an opening in the bone, Block teaches a device which "must not enter the bone," as

stated in Block's list of objectives of his invention at Column 2, line 14. Instead, Block's orthodontic anchor is specifically designed to be placed on the skeletal bone, with subsequent biointegration of bone tissue into the hydroxylapatite surface of the onplant occurring over an approximate twelve (12) week period. See, for example: the abstract; Column 1, line 67-Column 2, line 30; and Column 4, lines 31-46. Given Block's clear teaching of an orthodontic anchor which "must not enter the bone" but rather, which is to be placed on the bone, the Block patent fails to teach or even suggest Applicants' invention as presented in claims 57 and 78.

Conclusion

Applicants respectfully submit that pending claims 38-83 patentably distinguish over the art of record, including the art provided in the Supplemental Information Disclosure Statement filed on the same date as this Reply, and Applicants look forward to receiving an early notification to this effect. If any outstanding issues remain, or the Examiner believes a telephone conference would be helpful in advancing the prosecution of this case, Applicants cordially invite the Examiner to call Applicants' representative at the number listed below.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P. ✓

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